

December 20, 2001

Mr. Thomas Christophel
Solvay Automotive, Inc.
1827 North Bendix Drive
South Bend, IN 46628

Dear Mr. Christophel:

Re: Exempt Operation Status,
141-15207-00047

The application from Solvay Automotive, Inc., received on November 26, 2001, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following automotive fuel tank manufacturing operation, to be located at 1827 North Bendix Drive South Bend, Indiana 46628, is classified as exempt from air pollution permit requirements:

One molded polyethylene automobile fuel tank manufacturing operation, consisting of:

- (1) One (1) tank sulfonation system, identified as System 1, equipped with two (2) scrubbers, identified as S1 and S2, controlling ammonia and sulfuric acid emissions, with the emissions exhausted through one (1) exhaust stack, identified as Stack #1.
- (2) One (1) tank sulfonation system, identified as System 2, equipped with two (2) scrubbers, identified as S3 and S4, controlling ammonia and sulfuric acid emissions, with the emissions exhausted through one (1) exhaust stack, identified as Stack #2.
- (3) One (1) auxiliary scrubber, identified as S5, controlling sulfuric acid bypass emissions, with emissions exhausted through one exhaust stack, identified as Stack #3.

There are no conditions associated with this source.

This exemption shall supersede the registration issued on May 13, 1991 and registration 141-3449-00047, issued on January 24, 1994.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

SDF

cc: File - St. Joseph County
St. Joseph County Health Department
Air Compliance - Rick Reynolds
Northern Regional Office
St. Joseph County Local Agency
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Solvay Automotive, Inc.
Source Location:	1827 North Bendix Drive, South Bend, Indiana 46628
County:	St. Joseph
Exemption No.:	141-15207-00047
Permit Reviewer:	SDF

The Office of Air Quality (OAQ) has reviewed a source exemption application from Solvay Automotive, Inc. relating to the operation of their existing molded polyethylene automobile fuel tank manufacturing operation.

History

On May 13, 1991, Solvay Automotive was issued a registration (no permit number issued for the registration), pursuant to 326 IAC 2-1-1(b)(3), for a automobile fuel tank manufacturing operation, specifically, one (1) tank sulfonation system, equipped with two scrubbers. The two scrubbers were installed to control the ammonia and hydrochloric acid emissions from the source.

On January 24, 1994, Solvay Automotive, Inc. was issued a second registration (141-3449-00047), again, pursuant to 326 IAC 2-1-1(b)(3), for one (1) additional sulfonation system, equipped with two additional scrubbers. The two control devices were installed to control the ammonia and sulfuric acid emissions from the additional sulfonation system.

On February 16, 2001, Solvay Automotive, Inc. applied for an approval (141-12176-00047) for a new auxiliary scrubber to supplement the existing scrubbers at the source.

On November 26, 2001, Solvay Automotive, Inc. submitted an application to notify the Office of Air Quality that the source is being sold and to review their existing permits to ensure that all proper approvals have been acquired.

The two registrations issued to Solvay Automotive, Inc. were for the source control devices, pursuant to 326 AC 2-1-1(b)(3). 326 IAC 2-1-1(b) required that any control equipment installed, be registered. This rule was repealed. No approval was issued for the auxiliary scrubber because the proposed change was for the installation of a control device without any increases in production or UPTE, a change that does not trigger any permitting requirements.

The pollutants emitted at the source are ammonia, sulfuric acid, and hydrofluoric acid. The ammonia and sulfuric acid are not regulated pollutants. Hydrofluoric acid is a regulated hazardous air pollutant (HAP). The estimated hydrofluoric acid unrestricted potential to emit (UPTE) is 0.25 tons/yr.

Therefore, since 326 IAC 2-1-1(b)(3) has been repealed, no actions were required for the installation of the auxiliary scrubber, and the estimated hydrofluoric acid UPTE is less than the applicable level of 1 ton per year, the source is determined to be an exemption pursuant to 326 AC 2-1.1-3(d)(1)(H).

Existing Approvals

The source was issued a source registration (no permit number issued for this registration, on May 13, 1991. The source has been operating under this approval and registration 141-3449-00047, issued on January 24, 1994.

Recommendation

The staff recommends to the Commissioner that the exemption be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application.

Emission Calculations

UNRESTRICTED POTENTIAL TO EMIT (UPTE):

The automotive fuel tank manufacturing operation generates hydrochloric acid, ammonia, and hydrofluoric acid emissions. Only hydrofluoric acid is a regulated pollutant.

Therefore the hydrofluoric acid unrestricted potential to emit is estimated based on the maximum annual emission rate of 500 lb/yr.

$$500 \text{ lb HF/yr} * 1/2000 \text{ ton HF/lb HF} = \mathbf{0.25 \text{ ton HFyr}}$$

EMISSIONS AFTER CONTROLS:

The HF emissions are uncontrolled. Thus, the emissions before controls equals the emissions after controls.

$$500 \text{ lb HF/yr} * 1/2000 \text{ ton HF/lb HF} = \mathbf{0.25 \text{ ton HFyr}}$$

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.” This table reflects the PTE before controls due to the modification based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	-
PM-10	-
SO ₂	-
VOC	-
CO	-
NO _x	-

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

Pollutant	Potential To Emit (tons/year)
Total Combined HAPs	0.25

Level of Permit Justification

Solvay Automotive, Inc. shall be permitted under an exemption pursuant to 326 IAC 2-1.1-3(d)(1)(H) which states that sources that have single and combined HAP emissions less than 1 ton/yr and 2.5 tons/yr, respectively, are exempt from the permitting requirements.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Status
PM ₁₀	attainment or unclassifiable
SO ₂	attainment or unclassifiable
NO ₂	attainment or unclassifiable
Ozone	maintenance attainment
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. St. Joseph County has been designated as maintenance attainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) St. Joseph County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (c) Fugitive Emissions

Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Tank Production	-	-	-	-	-	-	0.25	0.25
PSD Major Levels	250	250	250	250	250	250	-	-
Part 70 Major Levels	-	100	100	100	100	100	10	25

- (a) This existing source is not a major PSD stationary source because no regulated pollutant emissions are greater than their respective major source levels and the source is not one of the 28 listed source categories.
- (b) This existing source is not a Title V major stationary source because no criteria pollutant potential to emit (PTE) exceeds the applicable level of 100 tons/yr, no single hazardous air pollutant PTE exceeds the applicable levels of 10 tons/yr, and the combined hazardous air pollutant PTE does not exceed the applicable level of 25 tons/yr.

Federal Rule Applicability

New Source Performance Standards (NSPS):

There are no New Source Performance Standards (326 IAC 12 and 40 CFR Part 60) that apply to the source.

National Emission Standards for Hazardous Air Pollutants (NESHAPs):

There are no National Emission Standards for Hazardous Air Pollutants (326 IAC 14 and 20 and 40 CFR Part 61 and 63) that apply to this source.

State Rule Applicability

Entire State Rule Applicability:

There are no entire state rules that apply to the source.

Individual State Rule Applicability

There are no individual state rules that apply to the source.

Conclusion

The proposed automobile tank manufacturing operation shall be operated pursuant to the conditions specified in exemption **141-15207-00047**.